

Nr 1. Diagnosis of diabetic kidney disease is based on:

- A. increased urine albumin excretion.
- B. increased leukocyte count in the urine.
- C. increased erythrocyte count in the urine.
- D. presence of red blood cell casts.
- E. presence of white blood cell casts.

Nr 2. Indicate the method which **is not** appropriate in preventing contrast-induced acute kidney injury:

- A. withholding metformin.
- B. administration of furosemide.
- C. avoiding dehydration.
- D. minimizing the volume of radiographic contrast media.
- E. withholding, if clinically appropriate, aminoglycoside antibiotics.

Nr 3. The effective method to prevent the recurrence of renal stones is:

- A. increase fluid intake.
- B. furosemide.
- C. increase protein intake.
- D. increase intake of sodium chloride.
- E. all the above methods are effective to prevent the recurrence of renal stones.

Nr 4. Progress of diabetic kidney disease may be prevented by:

- A. treatment of hypertension.
- B. better glucose control.
- C. smoking cessation.
- D. reduced protein intake.
- E. all of the above methods can prevent the progress of diabetic kidney disease.

Nr 5. Symptomatic bacteriuria should be treated with the antibiotic in:

- A. pregnant woman.
- B. type 2 diabetes patient.
- C. type 1 diabetes patient.
- D. patient with indwelling urinary catheter.
- E. all the above are indications to start treatment with an antibiotic.

Nr 6. The risk of renal stone may be increased by:

- A. urinary tract infection.
- B. primary hyperparathyroidism.
- C. ulcerative colitis.
- D. leukaemia.
- E. all of the above are correct.

Nr 7. A patient who underwent colon tumor removal, in the first three days after the surgery should have his fluids intravenously supplemented with:

- A. only saline solution (0.9% NaCl).
- B. only glucose solution (5% glucose).
- C. both 5% glucose and 0.9% saline solution.
- D. saline solution (0.9%) in patients with diabetes and glucose solution (5%) in patients without diabetes.
- E. only Ringer's solution.

Nr 8. In a patient without any symptoms the serum potassium concentration of 3.4 mmol/L was observed. The patient should be advised first to:

- A. increase potassium intake.
- B. stop taking spironolactone.
- C. take furosemide orally.
- D. take thiazide diuretics orally.
- E. stop taking angiotensin converting enzyme inhibitors.

Nr 9. The first thing to increase blood pressure in dehydrated patient with hypotension is to administer:

- A. midodrine orally.
- B. hydrocortisone intravenously.
- C. fludrocortisone orally.
- D. caffeine orally.
- E. saline 0.9% solution intravenously.

Nr 10. Metformin is **contraindicated** in patients with:

- A. end-stage renal disease.
- B. severe liver damage.
- C. acute kidney injury.
- D. acute myocardial infarction.
- E. all the above are correct.

Nr 11. Iron deficiency is accompanied by:

- A. decreased transferrin saturation.
- B. decreased total iron-binding capacity.
- C. decreased unsaturated iron-binding capacity.
- D. increased serum ferritin levels.
- E. A, B & C are correct.

Nr 12. In a patient with nephrotic syndrome treated with cyclosporine for a long-time, several disturbances in serum lipids are found. Total cholesterol is 278 mg/dL, serum triglycerides are 308 mg/dL, serum creatinine is 1.45 mg/dL. In order to improve lipid profile the drug of choice should be:

- A. statin e.g. atorvastatin at a mean dose (20 mg/d).
- B. fibrate e.g. fenofibrate.
- C. fibrate together with statin at high doses.
- D. fibrate together with statin at mean doses.
- E. fibrates and statins are contraindicated in kidney diseases.

Nr 13. In chronic kidney disease erythropoiesis stimulating agents are used to treat anaemia. What is the target haemoglobin level?

- A. 9 g/dL.
- B. 9-10 g/dL.
- C. 11-12 g/dL.
- D. 14-15 g/dL.
- E. >15 g/dL.

Nr 14. What is the cause of thrombotic complications in patients with nephrotic syndrome:

- A. treatment with ACE inhibitors (e.g. enalapril).
- B. hyperlipidemia.
- C. increased coagulation and impaired fibrinolysis due to loss of coagulation inhibitors and activators of fibrinolysis with the urine.
- D. low protein diet.
- E. heparin.

Nr 15. Which of the following statements concerning systemic lupus erythematosus (SLE) is **false**?

- A. renal involvement is clinically evident in up to 85% of patients.
- B. glomerular injury is triggered by the formation of immune complexes within the glomerular capillary wall.
- C. in patients with antiphospholipid syndrome thrombotic microangiopathy may be the dominant feature.
- D. renal biopsy has not proven to be useful for treatment design.
- E. anti-double-stranded DNA (dsDNA) antibodies are highly specific to SLE.

Nr 16. A typical feature of nephrotic syndrome is:

- A. albumin urine excretion > 2 g per 1 g creatinine.
- B. albumin urine excretion >2 g per 1 g creatinine + red cell casts.
- C. protein urine excretion >3.5 g per 1 g creatinine + red cell casts.
- D. protein urine excretion > 3.5 g per 1 g creatinine.
- E. protein urine excretion > 2g per 1 g creatinine + hyperlipidemia.

Nr 17. Central diabetes insipidus may result from:

- A. head trauma.
- B. suprasellar tumor.
- C. intrasellar tumor.
- D. damage to the posterior lobe of the pituitary gland.
- E. all of the above.

Nr 18. Albuminuria serves as:

- A. key adjunctive tool for monitoring nephron injury.
- B. tool for evaluation of the response to therapy in many forms of chronic kidney disease.
- C. particularly useful diagnostic tool in diabetes, hypertension and glomerulonephritis.
- D. the best tool when albumin-to-creatinine ratio is calculated in a spot first morning urine sample.
- E. all of the above answers are correct.

Nr 19. It has been advised to assess the effectiveness of antibiotic treatment of *Helicobacter pylori* measured by the urea breath test some time after termination of the treatment. It should be evaluated after:

- A. 2 weeks.
- B. 6 weeks.
- C. 3 months.
- D. 9 months.
- E. 12 months.

Nr 20. In which of the following clinical conditions can elevated serum amylase be found?

- 1) pancreatic diseases;
- 2) biliary tract diseases;
- 3) spleen rupture;
- 4) ruptured ectopic pregnancy;
- 5) inflammation of the salivary glands.

The correct answer is:

- A. 1,2,3.
- B. 1,2,5.
- C. 1,3,5.
- D. 1,3,4,5.
- E. all of the above.

Nr 21. In a woman with ulcerative colitis a flare of the disease occurred during pregnancy. Which of the following methods of treatment are safe in pregnancy?

- 1) sulfasalazine;
- 2) ciprofloxacin;
- 3) mesalazine;
- 4) biological treatment;
- 5) glucocorticosteroids.

The correct answer is:

- A. 1,3,5. B. 1,2,3,5. C. 1,3,4,5. D. 2,3,5. E. all of the above.

Nr 22. The risk for cancer transformation in colon polyps depends on their histologic structure and size. Which polyps show the highest risk for cancer transformation?

- A. villous adenomas. D. metaplastic polyps.
B. tubular adenomas. E. Peutz-Jeghers polyps.
C. tubulovillous adenomas.

Nr 23. A 42-year-old male reports tender swelling of the third finger of the right hand, as well as two fingers of the left foot (the second and the fourth), pain and the limitation of motion range of the right knee. He is also complaining about the fatigue, lost of weight and elevated temperature without infection. In physical examination: dactylitis (“sausage digits”) of the mentioned fingers with pitting nail changes, swollen knee joint with effusion – the removed synovial fluid was of inflammatory type. In laboratory testing: rheumatoid factor negative, CRP 48 mg/L. The most likely diagnosis is:

- A. systemic lupus erythematosus (SLE). D. rheumatoid arthritis (RA).
B. systemic sclerosis (SSc). E. gout.
C. psoriatic arthritis (PsA).

Nr 24. Which from the following autoantibodies are the most typical of Sjögren’s syndrome (sicca syndrome)?

- A. rheumatoid factor. D. antibodies anti-SS-A, anti-SS-B.
B. anti-dsDNA antibodies. E. none of the above.
C. ANCA antibodies.

Nr 25. Which of the following drug(s) can be given to a pregnant female with systemic lupus erythematosus and secondary antiphospholipid syndrome diagnosis?

- 1) glucocorticosteroids;
- 2) vitamin K antagonists (acenocoumarol, warfarin);
- 3) acetylsalicylic acid in a dose of 75 mg/d;
- 4) cyclophosphamide;
- 5) low molecular weight heparin (LMWH).

The correct answer is:

- A. 1,2,3. B. 1,3,5. C. only 2. D. 3,4. E. only 5.

Nr 26. The following changes are all visible on plain radiographs **except for**:

- A. tophi (gout nodules). D. syndesmophytes.
B. Schmorl’s nodules. E. osteophytes.
C. Heberden’s nodules.

Nr 27. The following features are all typical of polymyalgia rheumatica clinical picture except for:

- A. onset in old age.
- B. pain of the muscles in the shoulder and/or pelvic girdles.
- C. high ESR.
- D. positive and rapid response to glucocorticoid therapy.
- E. high activity of muscles enzymes.

Nr 28. Which of the following features is/are applicable to the clinical picture of antiphospholipid syndrome?

- 1) hypercholesterolaemia;
- 2) arterial thrombosis;
- 3) venous thrombosis;
- 4) enthesitis;
- 5) pregnancy loss.

The correct answer is:

- A. 1,3. B. 2,3,5. C. only 4. D. 4,5. E. none of the above.

Nr 29. A 48-year-old male was referred to rheumatologist owing to fever, chronic otitis media refractory to antibiotics, chronic sinusitis with purulent and bloody nasal discharge, and perforation of the nasal septum. The chest X-ray showed bilateral disseminated parenchymal infiltrates in the form of oval nodules. In the urinalysis microhematuria. One can expect in the serum of this patient the following autoantibodies:

- A. anti-dsDNA. B. c-ANCA. C. anti-CCP. D. anti-Scl-70. E. anti-Jo-1.

Nr 30. For which of the following connective tissue diseases the typical clinical features include: sclerodactyly, pulmonary interstitial fibrosis, pulmonary hypertension and Raynaud's phenomenon related to irreversible vascular changes (a.o. megacapillars - capillary dilatation) visible in nailfold capillaroscopy:

- A. systemic lupus erythematosus.
- B. rheumatoid arthritis.
- C. Sjögren's syndrome.
- D. systemic sclerosis.
- E. polymyositis.

Nr 31. The diagnosis of restrictive ventilatory pattern is doubtless when:

- A. $FEV_1/FVC > 85\%$.
- B. $FVC < 80\%$ of the predicted value.
- C. decreased TLC (< 5 percentile, standard deviation score < -1.645).
- D. decreased DLCO (< 5 percentile, standard deviation score < -1.645).
- E. $FEV_1 < 80\%$ of the predicted value.

Nr 32. Positive spirometric reversibility test shows:

- A. reversibility of bronchial obstruction.
- B. reversibility of gas transfer disturbances.
- C. reversibility of restriction.
- D. improving in exercise capacity.
- E. improving airflow in the small airways.

Nr 33. Which of the following clinical features are the most typical of community acquired pneumonia caused by *Mycoplasma pneumoniae*?

- A. high body temperature, severe clinical state, respiratory insufficiency.
- B. high body temperature, myalgia and ostealgia, mild symptoms of upper respiratory tract infection, elevated WBC with a left shift in the WBC differential count.
- C. preceding mild symptoms of upper respiratory tract infection, subfebrile body temperature, good clinical condition, dry and protracting cough.
- D. severe condition, massive purulent expectoration, high body temperature.
- E. severe condition, early signs of respiratory insufficiency, a disproportion between minimal radiological changes and severe clinical symptoms.

Nr 34. Chronic obstructive pulmonary disease (COPD) may be diagnosed when:

- A. chest CT scans reveal the areas of emphysema and thickened bronchial walls.
- B. FEV₁/FVC is decreased below 70% in a spirometry performed after bronchodilator.
- C. the patient is a smoker or former smoker and complains of chronic cough, shortness of breath, and a limited exercise tolerance.
- D. FEV₁ is below 80% of the predicted value and reversibility test is negative.
- E. FEV₁ is below 70% of the predicted value and reversibility test is negative.

Nr 35. If a patient with chronic heart failure suffers from dyspnea during normal physical activity but shows no symptoms at rest then his/her clinical condition is indicative of the following functional class:

- A. I according to NYHA (*New York Heart Association*).
- B. II according to NYHA (*New York Heart Association*).
- C. III according to NYHA (*New York Heart Association*).
- D. IV according to NYHA (*New York Heart Association*).
- E. II according to CCS (*Canadian Cardiovascular Society*).

Nr 36. High normal blood pressure defined by clinical measurements:

- 1) ranges between systolic values of 140-159 mmHg and diastolic values of 90-99 mmHg;
- 2) ranges between systolic values of 140-149 mmHg and diastolic values of 90-94 mmHg;
- 3) ranges between systolic values of 130-139 mmHg and diastolic values of 85-89 mmHg;
- 4) ranges between systolic values of 120-129 mmHg and diastolic values of 80-84 mmHg;
- 5) includes general target values associated with the management of arterial hypertension.

The correct answer is:

- A. 1,5.
- B. 2,5.
- C. only 3.
- D. 3,5.
- E. only 4.

Nr 37. Which of the following statements concerning the right bundle branch block (RBBB) are true?

- 1) QRS is widened >120 ms;
- 2) rsR' morphology of QRS is observed in V1-V2 leads;
- 3) rsR' morphology of QRS is observed in V5-V6 leads;
- 4) it is an indication for thrombolytic therapy in patients with acute myocardial infarction;
- 5) it is an absolute indication for pacemaker implantation.

The correct answer is:

- A.** 1,2. **B.** 1,3. **C.** 1,2,4. **D.** 1,2,4,5. **E.** 1,3,4,5.

Nr 38. Increased levels of cardiac troponins may be observed in the following situations:

- 1) acute myocardial infarction;
- 2) heart failure;
- 3) rhabdomyolysis;
- 4) renal insufficiency;
- 5) pulmonary embolism.

The correct answer is:

- A.** only 1. **B.** 1,2. **C.** 1,2,3. **D.** 1,2,5. **E.** all of the above.

Nr 39. Administration of which of the following drugs **does not** need monitoring of their anticoagulant effect?

- A.** acenocoumarol. **D.** low molecular weight heparin.
B. warfarin. **E.** administration of each of the above mentioned drugs
C. unfractionated heparin. needs monitoring.

Nr 40. In children and adolescents arterial hypertension is diagnosed considering percentiles of blood pressure values and:

- 1) age;
- 2) sex;
- 3) body mass percentile;
- 4) height percentile.

The correct answer is:

- A.** 1,2,3. **B.** 1,2,4. **C.** 1,2. **D.** 2,3,4. **E.** 1,3,4.

Nr 41. The congenital anemias caused by the bone marrow failure include:

- A.** aplastic anaemia – Fanconi type. **D.** Blackfan-Diamond syndrome.
B. congenital dyskeratosis. **E.** all of the above.
C. Shwachman-Diamond syndrome.

Nr 42. The main symptoms of nephritic syndrome in children are:

- A.** proteinuria, erythrocyturia, cylindruria, hypertension.
B. isolated proteinuria.
C. orthostatic proteinuria, cylindruria, haematuria.
D. proteinuria, erythrocyturia.
E. isolated erythrocyturia.

Nr 43. Which of the following are diagnostic criteria of Alport syndrome?

- 1) family history of nephrocalcinosis;
- 2) family history of unexplained haematuria;
- 3) recurrent urinary tract infections;
- 4) retinal pigmented lesions;
- 5) recurrent urolithiasis.

The correct answer is:

- A.** 1,4. **B.** 2,3. **C.** 1,5. **D.** 2,4. **E.** 3,5.

Nr 44. The diagnostic gold standard in food allergy is:

- A.** single-blind food challenge, without placebo.
B. single-blind placebo-controlled food challenge.
C. double-blind food challenge, without placebo.
D. double-blind placebo-controlled food challenge.
E. all the answers are false.

Nr 45. The proper interval between the administration of live vaccines is **at least**:

- A.** 1 week. **B.** 2 weeks. **C.** 3 weeks. **D.** 4 weeks. **E.** 6 weeks.

Nr 46. A 12-year-old boy presents a few weeks' history of a skin rash which occurred in symmetric fashion over the metacarpophalangeal and interphalangeal joints, a "lilac" rash on the upper eyelids and symmetric proximal muscle weakness. The clinical examination shows also oedema of the eyelids and of the upper lip, minor ulcerations within the auricles as well as pain on palpation and contracture of the shoulder muscles. The most probable diagnosis is:

- A.** Guillain-Barré syndrome. **D.** juvenile systemic lupus erythematosus.
B. localized scleroderma. **E.** dermatomyositis.
C. myasthenia gravis.

Nr 47. A 12-year-old boy has presented dysphagia, odynophagia, vomiting, regurgitation of undigested food and heartburn over the past several years. All symptoms have aggravated over the last week. In medical examination - weight deficiency. Radiological examination showed an acute tapering at the lower esophageal sphincter and narrowing at the gastroesophageal junction ("bird's beak"). The esophagus above the narrowing was dilated. The most probable diagnosis is:

- A.** esophageal agenesis.
B. esophageal atresia.
C. esophageal achalasia.
D. gastroesophageal reflux disease.
E. pyloric stenosis.

Nr 48. Which of the following diseases are an indication for a screening test for celiac disease in children and adolescents?

- 1) Down syndrome;
- 2) diabetes mellitus type 1;
- 3) Gilbert's syndrome;
- 4) autoimmune hepatitis;
- 5) diabetes mellitus type 2.

The correct answer is:

- A. 2,3,4. B. 1,4,5. C. 1,2,4. D. 2,3,5. E. all of the above.

Nr 49. Which of the following is the first-line treatment of the pertussis (whooping cough) in a 9-year-old girl?

- A. first-generation cephalosporin. D. tetracycline.
B. macrolide. E. third-generation cephalosporin.
C. second-generation cephalosporin.

Nr 50. Carbohydrate exchange is the amount of product (in grams) which contains:

- A. 0.1 g of carbohydrate. D. 100 g of carbohydrate.
B. 1 g of carbohydrate. E. 1000 g of carbohydrate.
C. 10 g of carbohydrate.

Nr 51. Conjunctivitis, serositis, lymphadenopathy, swollen palms and feet with exfoliating, myocarditis and inflammation of the coronary vessels are the symptoms of:

- A. Henoch-Schonlein purpura. D. Takayasu disease.
B. rheumatic fever. E. dilated cardiomyopathy.
C. Kawasaki disease.

Nr 52. In treatment of tonsillitis the first-line drugs are:

- 1) phenoxymethyl penicillin V;
- 2) first generation cephalosporin (e.g. cefadroxil);
- 3) second generation cephalosporin (e.g. cefaclor);
- 4) macrolides.

The correct answer is:

- A. 1,2. B. 1,4. C. 2,3. D. 1,2,3. E. only 4.

Nr 53. Choose the **false** statement concerning Lyme disease (borreliosis):

- A. in the first phase of the disease erythema migrans appears on the skin.
B. in the course of the disease cardiac arrhythmias could be observed.
C. virus of the tick-borne encephalitis is the etiological factor of the disease.
D. in the third phase of the disease atrophic inflammation of the skin occurs.
E. the disease could result in plegia of the cranial nerves.

Nr 54. Mental retardation, flattened occiput, single transverse palmar crease, epicanthal folds, and atrioventricular septal defect (AVSD) are the symptoms of:

- A. Klinefelter syndrome. D. Henoch-Schonlein purpura.
B. Turner syndrome. E. TRPS syndrome.
C. Down syndrome.

Nr 55. The etiological factor of infectious mononucleosis is:

- A. Epstein-Barr virus (EBV).
- B. *Morbillivirus*.
- C. *Mycoplasma pneumoniae*.
- D. *Parvovirus*.
- E. ECHO virus.

Nr 56. Choose the true statement concerning neonatal lupus erythematosus (NLE):

- A. it is a disorder caused by the transplacental passage of maternal anti-Sm antibodies to the fetus.
- B. cardiac manifestation of NLE is direct life-threat to the newborn; the most common symptoms of cardiac manifestation are complete heart block and other arrhythmias.
- C. hematologic abnormalities in NLE – leucopenia, anaemia, thrombocytopenia - always require treatment with glucocorticosteroids.
- D. children with NLE in the future course of life always develop systemic lupus erythematosus.
- E. hematologic and skin abnormalities of NLE disappear at the age of 3-4 years.

Nr 57. The most common type of syncope in children during puberty is:

- A. vasovagal syncope.
- B. cardiac syncope.
- C. syncope connected with epilepsy.
- D. syncope in the course of carotid sinus syndrome.
- E. syncope connected with hypoglycemia.

Nr 58. Typical symptoms of the tetralogy of Fallot and other congenital heart defects with similar hemodynamic disturbances are “tet spells”. Treatment procedures in „tet spell” include the following, **except for**:

- A. knee chest position of the child.
- B. passive oxygenation.
- C. intramuscular epinephrine in the dose of 0.01 mg/kg body weight.
- D. intramuscular dolantine in the dose of 1 mg/kg body weight.
- E. compensation of acidosis with intravenous sodium bicarbonate in the dose of 1 mEq/kg body weight.

Nr 59. The most common congenital heart defect in children is ventricular septal defect (VSD). Which of the following statements referring to this heart defect is **false**?

- A. the hemodynamic disturbances are the consequence of left-to-right shunt and changes in the pulmonary vessels.
- B. the shunt size depends upon the size of the defect and the value of vascular pulmonary resistance.
- C. left-to-right shunt causes left ventricular volume overload and as a consequence dilatation and hypertrophy of the left ventricle.
- D. typical of ventricular septal defect is ejection systolic murmur, the loudest along the left sternum margin and over the lower sternum.
- E. spontaneous septal defect closure is possible.

Nr 60. Cyanosis is always an alarming symptom. It is caused by increased level of reduced hemoglobin in capillary vessels. What is the lowest level of reduced hemoglobin in the arterial blood at which cyanosis could be observed?

- A. 9 g/dL. B. 7 g/dL. C. 5 g/dL. D. 3 g/dL. E. 1 g/dL.

Nr 61. Non-pharmacological treatment of children with hypertension include the following, **except for**:

- A. increase in regular physical activity.
- B. reduction of protein intake.
- C. weight reduction in the case of overweight.
- D. avoiding stressful situations at home and away from it.
- E. reduction of sodium salt (NaCl) intake to 5-6 g per day.

Nr 62. Sinus arrhythmia is a common physiological phenomenon in children and sometimes it is the reason for referring a child to the Pediatric Cardiological Outpatient Department. Which of the following statements concerning sinus arrhythmia is **false**?

- A. sinus arrhythmia is diagnosed when differences between the following R-R segment intervals in electrocardiography are longer than 0.08 sec.
- B. sinus arrhythmia is not the symptom of sick sinus syndrome.
- C. sinus arrhythmia in children is physiological if the heart rhythm is within normal limits for age.
- D. sinus arrhythmia is dependent on respiratory phase – increase in the heart rate during expiration and decrease during inspiration is observed.
- E. the cause of sinus arrhythmia includes the decrease in intra-chest pressure during inspiration, which results in the increase in blood volume flowing into the right atrium.

Nr 63. Which of the following is the drug of choice in a child under 1 year old in the case of ineffective physical methods to stop paroxysmal supraventricular tachycardia?

- A. verapamil. B. adenosine. C. dobutamine. D. atropine. E. adrenaline (epinephrine).

Nr 64. Most of the heart murmurs in children are harmless. Which of the following statements concerning heart harmless murmurs is **false**?

- A. harmless murmurs are usually barely audible of loudness up to 3/6 on Levine's scale.
- B. could be auscultated in the healthy heart without an anatomical defect.
- C. intensity and radiation of the harmless heart murmurs decrease in fever and after a physical effort.
- D. harmless heart murmurs become louder while changing from standing to lying.
- E. one of the causes of harmless heart murmurs is the presence of the tendinous chord in the left ventricle.

Nr 65. The parents bring their 3.5-year-old daughter to the emergency room because of the increasing fatigue, weakness, fever and oliguria lasting for about one day. From the past medical history taken by the MD it is known that the girl has been ambulatory treated because of diarrhea for the last 3 days. On physical examination the physician finds body temperature of 37.2°C, heart rate of 120 per minute, shortness of breath with the breathing rate of 26/minute, the blood pressure of 85/50 mmHg. Laboratory tests reveal: severe haemolytic anaemia (Hb=6.8 g/dL) with the presence of schistocytes on the blood smear, thrombocytopenia of 80,000/ μ L, leukocytosis of 8,500/ μ L, the serum urea level of 89 mg/dL and creatinine level 1.4 mg/dL. The observed abnormalities are most probably related to the pathogenic effect of:

- A. beta-hemolytic *Streptococcus* group A causing acute glomerulonephritis in the patient.
- B. gram-negative *Salmonella enterica* rod.
- C. *Escherichia coli* having the ability to synthesize verotoxin.
- D. viruses from the group of rotaviruses or adenoviruses.
- E. none of the above mentioned germs, because they do not have the infectious root; however, they are related to the activation of mechanisms of autoimmunity leading to the lysis of erythrocytes and thrombocytes

Nr 66. MODY – the type of diabetes mellitus:

- 1) is inherited in autosomal dominant manner;
- 2) can be traced in several generations of the patient's family;
- 3) insulin resistance is a pathogenic substrate;
- 4) diagnosis can be made from childhood to young adulthood;
- 5) is not connected with the increased risk of the complications such as microangiopathy.

The correct answer is:

- A. all of them. B. 1,2,4. C. 2,3,5. D. 1,3. E. 4,5.

Nr 67. A 15-month-old girl has been restless and weepy for the last 3 weeks, and lost weight. The parents noticed the enlarged abdominal circumference and its asymmetry. GP immediately referred the child to the hospital, assessing its general condition as medium-heavy. The girl was pale with increased body temperature and a palpable hard tumor in the abdomen. In the light of the clinical presentation the most likely diagnosis is:

- A. Wilms' tumor, because it is the most frequent tumor in the abdominal cavity during childhood.
- B. neuroblastoma, because catecholamines secreted by this tumor cause rapid cachexia, they cause the clinical presentation of severe systemic disease, and the tumor itself often arises from the adrenal gland.
- C. germinoma, because of the asymmetrical localization of the tumor in the abdominal cavity.
- D. T-cell lymphoblastic lymphoma, because the abdominal cavity is the most frequent localization of this type of lymphoma, and rapid progression characteristic of this disease explains multiple general symptoms.
- E. teratoma, because it is a benign tumor and its growth is very slow.

Nr 68. According to the obligatory Vaccination Program in Poland, in order to maintain the concentration of anti-HBs antibodies above the protective level (10 j.m./L), additional doses of hepatitis B vaccine are administered to the following persons:

- 1) chronically ill with immune deficiencies;
- 2) from the household of hepatitis B patients and the carriers of hepatitis B virus;
- 3) residing in care facilities, educational institutions and closed establishments;
- 4) undergoing hemodialysis;
- 5) undergoing surgery after 5 years of the previous dose of hepatitis B vaccine.

The correct answer is:

- A.** 1,2. **B.** 1,2,3. **C.** all of the above. **D.** 1,3,4. **E.** 1,4.

Nr 69. Method of choice for the treatment of upper gastrointestinal tract bleeding is:

- A.** laparoscopic surgery. **D.** endoscopy.
B. blood or blood substitute transfusion. **E.** none of the above.
C. classical surgery.

Nr 70. Choose the true sentence:

- A.** surgery is the proper therapy for rectal cancer.
B. caecum is the most frequent localization of colorectal cancer.
C. enteritis is not related to the increased risk of colorectal cancer occurrence.
D. squamous cell carcinoma is the most common histopathological type of colorectal cancer.
E. neo-adjuvant radiotherapy is the proper therapeutic management for rectal cancer T3N0 localized 5cm from the edge of the anus.

Nr 71. Kwashiorkor is the deficiency of:

- A.** carbohydrates. **D.** protein.
B. water. **E.** protein and carbohydrates.
C. carbohydrates and water.

Nr 72. Prophylaxis of thromboembolic complications includes:

- A.** early mobilisation.
B. Low Molecular Weight Heparin administration.
C. acetylsalicylic acid administration.
D. compression stockings.
E. all of the answers are correct.

Nr 73. Which of the conditions mentioned below may be a cause of hyperkalemia?

- A.** posttraumatic injury of the muscles. **D.** correct answers are A and C.
B. chronic diarrhoea. **E.** none of the answers is correct.
C. hyperthyroidism.

Nr 74. Referred by GP, a 32-year-old male came to the outpatient surgery clinic. He presented suppurative wound caused by a rod sticking out from the ground, with fetid substance. The patient is feverish up to 38.0°C, apathetic, erythema is seen around the wound, the skin is tensioned, glittering, on compression palpable tissue crepitus. In the lab tests performed by GP, apart from elevated inflammatory parameters, the creatinin level is also higher than the reference. Which of the proceeding would be the most likely in this case?

- A. wound culture examination, empiric antibiotic therapy, nephrology consultation, continuous treatment in the outpatient clinic.
- B. surgery department admission, wound culture examination, intravenous antibiotic therapy, extensive necrotic tissue excision, possible limb amputation.
- C. surgery department admission, wound culture examination, empiric antibiotic therapy, incision and phlegmon drainage.
- D. incision of phlegmon in the outpatient surgical clinic, wound culture examination, empiric antibiotic therapy.
- E. none of the answers is correct.

Nr 75. Choose the right set of features characteristic of Leśniowski-Crohn disease:

- 1) pathologic changes may occur in each part of the digestive tract;
- 2) pathologic changes are limited to the mucosa and the submucosa;
- 3) changes are often accompanied by perirectal fistulas;
- 4) in this disease limited resections are the most appropriate;
- 5) in this disease extensive resections are the most appropriate.

The correct answer is:

- A. 1,2,4. B. 2,3,4. C. 2,3,5. D. 1,3,4. E. 1,2,3,4.

Nr 76. The proper placement of a tube in tube thoracostomy is of primary importance in chest trauma patients' care. The standard position is in the midaxillary line in the fifth or sixth intercostal space. Which of the following statements are true:

- 1) this location is usually safely above the diaphragm;
- 2) this is the area with the thinnest chest wall musculature;
- 3) this positioning depends on gravitation and assures possibility of removing both: air and blood.

The correct answer is:

- A. only 1. B. only 2. C. 1,2. D. 1,3. E. 1,2,3.

- Nr 77.** The patient treated with oral anticoagulants because of atrial fibrillation comes to hospital with an upper abdominal pain and yellowish discoloration of the sclera. Sonography reveals small gallstones in the gall bladder. The proper management is:
- 1) endoscopic papillotomy and evacuation of the gallstone from the bile ducts as soon as possible;
 - 2) therapy with spasmolytic drugs and fluids till the gallstone is eliminated from the bile ducts;
 - 3) determination of INR level and – if it is not above 5 – endoscopic papillotomy with the evacuation of the gallstone from the bile ducts;
 - 4) urgent transfusion of 3-4 units of fresh frozen plasma, endoscopic papillotomy with the evacuation of the gallstones from the bile ducts;
 - 5) endoscopic papillotomy and the evacuation of the gallstones from the bile ducts if INR level is below or equals 1.5.

The correct answer is:

- A.** only 1. **B.** only 2. **C.** 2,3. **D.** 4,5. **E.** only 5.

Nr 78. Indicate sentences which properly characterize brain concussion:

- 1) this is a transient loss of consciousness as a result of head trauma, lasting a few seconds or hours;
- 2) lumbar puncture, which decreases troublesome headaches, is the method of treatment;
- 3) ischemic stroke can be the complication of concussion;
- 4) retrograde and anterograde amnesia are characteristic features of brain concussion;
- 5) headache and vertigo, nausea and vomits frequently last a few days after the trauma.

The correct answer is:

- A.** 2,3. **B.** 1,4,5. **C.** 2,4,5. **D.** 2,3,4. **E.** 1,2,3.

Nr 79. The typical symptoms of upper gastrointestinal bleeding **do not** include:

- A.** sudden fainting or syncope.
B. hemodynamic shock (blood pressure drop, paleness, sweating).
C. vomiting blood clots.
D. tarry stool.
E. presence of fresh blood in the stool.

Nr 80. Choose the true sentences concerning the treatment of upper gastrointestinal tract bleeding:

- 1) in about 80% the bleeding stops spontaneously or with the conservative treatment;
- 2) the best method of treatment is to achieve hemostasis with endoscopy;
- 3) the most effective method of hemostasis is the surgery;
- 4) the safest method of treatment is endovascular procedure (embolisation of the bleeding vessel);
- 5) in some cases an effective method of therapy is to control bleeding with the balloon (Sengstaken-Blakemore tube).

The correct answer is:

- A.** 1,2,4. **B.** 1,2,5. **C.** 1,4,5. **D.** 3,5. **E.** none of the above.

Nr 81. Which of the following sentences concerning the treatment of incarcerated hernia are true?

- 1) incarcerated hernia can be reduced within the first few hours;
- 2) hernia reduction may be always undertaken, irrespective of an elapsed time from incarceration;
- 3) incarcerated hernia should always be treated surgically;
- 4) reduction of hernia may be associated with the risk of damage to the contents of the hernia sac.

The correct answer is:

- A.** 1,4. **B.** 2,4. **C.** 3,4. **D.** only 3. **E.** only 4.

Nr 82. Which of the following statements concerning mechanical ileus (colorectal) are true:

- 1) it is most frequently caused by colon cancer;
- 2) surgery should include the excision of part of the intestine with the tumor;
- 3) formation of artificial anus is always necessary;
- 4) it is caused by sigmoid diverticulosis;
- 5) artificial anus is not always necessary.

The correct answer is:

- A.** 1,4,5. **B.** 1,2,5. **C.** 1,3,4. **D.** 1,2,4. **E.** 2,3,4.

Nr 83. Which of the following statements concerning hernias in postoperative scar are true:

- 1) they may become incarcerated;
- 2) they are frequently caused by wound suppuration;
- 3) truss is the proper method of treatment;
- 4) the results of the surgery with or without polypropylene mesh are similar;
- 5) they are the result of anaemia.

The correct answer is:

- A.** 1,2. **B.** 1,3. **C.** 4,5. **D.** 1,5. **E.** 2,4.

Nr 84. Colorectal cancer develops on the basis of:

- 1) colorectal polyp;
- 2) hypochromic anemia;
- 3) familial adenomatous polyposis;
- 4) ulcerative colitis;
- 5) colon diverticulosis.

The correct answer is:

- A.** 1,2,4. **B.** 1,2,3. **C.** 1,3,5. **D.** 1,3,4. **E.** 2,3,5.

Nr 85. Which of the following statements concerning hernias of inguinal region are true:

- 1) their formation is connected with the disorders of collagen metabolism;
- 2) their formation is connected with the defect of abdomen musculature;
- 3) laparoscopic surgery is the best method to treat them;
- 4) femoral hernias are more frequent in men;
- 5) surgery with the use of plastic mesh gives the lowest rate of recurrence.

The correct answer is:

- A.** 1,3. **B.** 3,4. **C.** 2,5. **D.** 1,5. **E.** 2,4.

Nr 86. The symptoms of sigmoid cancer are:

- | | |
|------------------------------------|------------------------------------|
| 1) narrow stools and constipation; | 4) cachexia; |
| 2) anaemia; | 5) presence of blood in the stool. |
| 3) increased body temperature; | |

The correct answer is:

- A. 1,2. B. 1,3. C. 2,5. D. 1,5. E. 1,4.

Nr 87. Which of the following statements is true with regard to the risk of colorectal adenocarcinoma occurrence in patients with Lesniowski-Crohn disease and ulcerative colitis?

- A. the risk is similar to the risk in healthy population.
- B. the risk is respectively: 5% (Lesniowski-Crohn disease) and 10% (ulcerative colitis) after 10 years of the illness.
- C. the risk increases with the duration of the illness.
- D. the risk is not related to the duration of the illness and is 30% in the population of patients with Lesniowski-Crohn disease and ulcerative colitis.
- E. the highest risk is related to the presence of proctitis.

Nr 88. A 25-year-old patient came to the ER because of the wound in his right foot. Three hours before, while cleaning up his garage, the plantar surface of his foot had been pierced with a nail. This is a puncture wound but according to the patient the nail stuck in the foot at the depth of about 2 cm. The patient received tetanus vaccine during his military service at the age of 19. Which of the following methods of management is the most correct?

- A. rinsing the wound, dressing, antibiotic.
- B. surgical debridement, anatoxin.
- C. surgical debridement, anatoxin, antibiotic.
- D. debridement, human anti-tetanus immunoglobulin, antibiotic.
- E. antiseptic wet dressing, antibiotic, secondary wound suture after debridement.

Nr 89. Which of the following can be used in the treatment of the pancreatic pseudocysts:

- | | |
|-------------------------------------|----------------------------------|
| A. US-guided percutaneous drainage. | D. the answers A and B are true. |
| B. surgical anastomosis. | E. all the answers are true. |
| C. endoscopic drainage. | |

Nr 90. The antibiotic prophylaxis in the treatment of patients with colorectal cancer:

- A. can be used only in patients with disseminated disease.
- B. should be introduced one day before the surgery.
- C. can be used only in patients with obstruction.
- D. should be introduced before the operation on the same day.
- E. the answers A and C are true.

- Nr 91.** The treatment of the first stage of acute pancreatitis includes:
- 1) treatment of shock, and water and electrolytes disturbances;
 - 2) prevention of secondary infection;
 - 3) surgery – laparotomy;
 - 4) parenteral or enteral feeding;
 - 5) constant suction through the gastric tube.

The correct answer is:

- A.** 1,2,3,5. **B.** 1,2,3,4. **C.** 1,2,4,5. **D.** 1,3,4,5. **E.** 2,3,4,5.

- Nr 92.** Superficial thrombophlebitis:
- 1) brings a risk of pulmonary embolism;
 - 2) always requires administration of low molecular weight heparins;
 - 3) requires treatment with heparin pump;
 - 4) requires the administration of anti-inflammatory drugs;
 - 5) may be treated with surgical removal of the clot.

The correct answer is:

- A.** 1,3. **B.** 1,5. **C.** 2,4. **D.** 3,5. **E.** 4,5.

- Nr 93.** The following are **contraindications** to laparoscopic cholecystectomy:
- 1) acute cholecystitis;
 - 2) adhesion in the abdominal cavity;
 - 3) heart failure;
 - 4) 1 and 2 trimester of pregnancy;
 - 5) mechanical jaundice in anamnesis.

The correct answer is:

- A.** 1,2,3. **B.** 2,3,4. **C.** 1,4,5. **D.** 1,3,4. **E.** 2,4,5.

- Nr 94.** A 85-year-old female patient fell over in her house and suffered a fracture of the femoral neck. The most probable cause of the fracture is:

- A.** local osteoporosis. **D.** bone metastases.
B. postmenopausal osteoporosis. **E.** multiple myeloma.
C. senile osteoporosis.

- Nr 95.** The following are the causes of pathological fractures:
- 1) long lasting bone strain;
 - 2) abuse of anabolic steroids;
 - 3) bone metastases;
 - 4) congenital bone fragility;
 - 5) osteoporosis.

The correct answer is:

- A.** 1,3,4. **B.** 1,3,5. **C.** 2,3,4. **D.** 2,3,5. **E.** 3,4,5.

- Nr 96.** What procedure should be implemented in the case of a diamniotic dichorionic (DA/DC) twin pregnancy complicated by intrauterine demise of one fetus?

- A.** DIC prevention with the use of heparin. **D.** observation.
B. emergent cesarean section. **E.** intravenous tocolytics.
C. antibiotic therapy.

Nr 97. A 24-year-old month postpartum breastfeeding woman decided to use contraception. Which of the following is the best choice?

- A. progestogen-only pills.
- B. cervical cap.
- C. combined oral contraceptives.
- D. estrogen-only pills.
- E. patient does not need contraception owing to lactation effect.

Nr 98. The contraindications to breast feeding **do not** include:

- A. alcohol and drug abuse.
- B. maternal HSV and HPV infection if specific IgG antibodies are present in neonatal blood.
- C. maternal HIV infection and maternal active tuberculosis.
- D. breast cancer treatment.
- E. breast abscess.

Nr 99. What procedure should be implemented in the case of breast swelling and tenderness in a woman that does not wish to breastfeed?

- A. oral analgesic.
- B. warm compress to the breast.
- C. broad spectrum antibiotic.
- D. oral bromocriptine.
- E. medroxyprogesterone injection.

Nr 100. A 26-year-old woman has vaginal bleeding 3 months after delivery. Gynecological examination revealed a normal size uterus with a closed cervix. What action should be taken in the first place?

- A. ultrasound examination.
- B. Doppler examination.
- C. evaluation of β -hCG serum level.
- D. dilation and curettage.
- E. antibiotic therapy (ampicillin iv).

**Now, take the other answer ticket and mark the answers
to questions 101 - 200.**

Nr 101. Normal fetal heart rate is between:

- A. 110-150 beats/min.
- B. 160-180 beats/min.
- C. 100-120 beats/min.
- D. 80-100 beats/min.
- E. none of the above.

Nr 102. The following complications can occur in a pregnant diabetic woman:

- A. abortion, urinary tract infections.
- B. preterm delivery, polyhydramnios.
- C. hypertension and preeclampsia.
- D. A, B and C are true.
- E. none of the above is true.

Nr 103. Fetal complications of gestational diabetes include:

- A. macrosomia.
- B. prematurity, respiratory distress.
- C. hypoglycemia, polycythemia, hypokalemia.
- D. all the above are true.
- E. none of the above is true.

Nr 104. The management of atonic uterine bleeding include the administration of:

- A. oxytocin.
- B. methylergometrine.
- C. PGF_{2α} prostaglandin.
- D. all of the above.
- E. none of the above.

Nr 105. Factors that predispose to breech presentation include:

- A. preterm delivery, low birthweight.
- B. abnormalities of pregnancy implantation in the cases of uterine congenital malformations.
- C. fetal anomalies, polyhydramnios or oligohydramnios, multiple gestation.
- D. all of the above.
- E. none of the above.

Nr 106. Breast cancer prevention in healthy women without risk factors, according to the recommendations of Polish Union of Oncology, include:

- 1) self-inspection of the breasts after menses (once a month);
- 2) ultrasound examination of the breasts every year in women over 30;
- 3) mammography every 12-24 months in women over 50.

The correct answer is:

- A. 1,2.
- B. 1,3.
- C. 1,2,3.
- D. 2,3.
- E. only 3.

Nr 107. Treatment of pre-invasive cervical cancer in women of reproductive age is based on:

- A. removal of the pathologically changed cervix.
- B. strict cytologic and colposcopic surveillance conducted every month.
- C. hysterectomy without adnexa.
- D. radical hysterectomy.
- E. none of the above.

Nr 108. The second Leopold's maneuver is used for:

- A. palpation of the uterine fundus and identification which fetal part occupies the fundus.
- B. identifying fetal parts on both sides of the abdomen.
- C. identifying the presenting part.
- D. all of the above.
- E. none of the above.

Nr 109. Vaginal bleeding during early pregnancy can be a sign of:

- 1) spontaneous abortion;
- 2) ectopic pregnancy;
- 3) gestational trophoblastic disease;
- 4) complication after the first trimester; termination of pregnancy (TOP)
- 5) ovarian cancer.

The correct answer is:

- A. 1,3,4.
- B. 3,4,5.
- C. 1,2,3.
- D. 1,2,3,4.
- E. all of the above.

Nr 110. Fetal tachycardia is caused by:

- | | |
|----------------------------------|-------------------------------------|
| 1) fetal compensation mechanism; | 4) maternal smoking; |
| 2) maternal infection; | 5) mental excitation of the mother. |
| 3) mother's alcoholism; | |

The correct answer is:

- A.** 1,2,3,4. **B.** 2,3,4. **C.** all of the above. **D.** 2,3,4,5. **E.** 1,2,4,5.

Nr 111. Mayer-Rokitansky-Küstner-Hauser Syndrome (MRKH) is characterized by:

- A.** congenital absence of the uterus.
- B.** congenital absence of the vagina.
- C.** congenital absence of the ovaries.
- D.** congenital absence of the vagina, partial uterus and Fallopian tube in the presence of the ovaries.
- E.** karyotype 46XY and androgen insensitivity.

Nr 112. It is **not true** that in polycystic ovary syndrome one observes:

- | | |
|---|--|
| A. increased serum total testosterone. | D. increased prolactin level. |
| B. increased serum free testosterone. | E. physiological levels of insulin. |
| C. hypoestrogenism. | |

Nr 113. Which of the following symptoms **least** suggest external and extragenital endometriosis in a 34-year-old woman?

- | | |
|---------------------------------|--|
| A. dysmenorrhea. | D. lower abdominal pain not related to menstrual cycle. |
| B. painful intercourses. | E. prolonged and profound menses, with clots. |
| C. primary infertility. | |

Nr 114. Which of the following conditions can lead to either primary or secondary lack of menstruation?

- | | |
|-------------------------------|------------------------------|
| A. anorexia nervosa. | D. Kallmann syndrome. |
| B. ovarian dysgenesis. | E. Sheehan syndrome. |
| C. Asherman syndrome. | |

Nr 115. An 18-year-old woman (BMI=21kg/m²) professionally practicing long-distance running came to the outpatient clinic due to the absence of menses. The history revealed that she never had menses and her breast growth was delayed. In gynecological examination the breasts on Tanner scale were in phase V and the pubic hair in phase IV. Speculum examination showed normal cervix and in bimanual examination the uterus was anteverted and of proper size and both ovaries were normal. The runner did not take any medications and suffered from any chronic diseases; generally she was in a good clinical condition. The most probable diagnosis is:

- | | |
|--|--|
| A. anorexia nervosa. | D. androgen insensitivity syndrome. |
| B. hypogonadotropic hypogonadism. | E. ovarian dysgenesis. |
| C. transverse vaginal septum. | |

Nr 116. The upper limit of serum Ca-125 level is:

- A. 20 U/mL. B. 25 U/mL. C. 30 U/mL. D. 35 U/mL. E. 40 U/mL.

Nr 117. Several findings of elevated blood pressure in a pregnant woman is an indication for hypotension therapy. The first-line medication is:

- A. angiotensin-converting enzyme (ACE) inhibitors.
B. diuretics.
C. α -adrenergic receptor antagonists.
D. magnesium sulfate.
E. methyldopa.

Nr 118. The most frequent ovarian cancer is:

- A. mucinous. B. serous. C. endometrioid. D. clear cell. E. squamous cell.

Nr 119. The most frequent cause of an irregular menstrual cycle is:

- A. duplex uterus.
B. anovulatory cycles.
C. hyperprolactinemia.
D. endometriosis.
E. combined oral contraceptives.

Nr 120. Typical signs and symptoms of vaginal fungal infections include:

- 1) vaginal pH > 4.5;
- 2) white, white, cottage cheese-like vaginal discharge;
- 3) clue cells;
- 4) hyphae in microscopic examination;
- 5) itching and burning sensation.

The correct answer is:

- A. 1,3,5. B. 2,4,5. C. all of the above. D. 1,2,3. E. 2,3,4.

Nr 121. Biological effect of estrogens include:

- A. stimulation of the development of secondary and tertiary sexual characteristics.
B. stimulation of glucagon synthesis.
C. increase in body temperature.
D. diuretic effect through aldosterone inhibition.
E. decrease in hypoglycemic effect of the saliva.

Nr 122. Which of the following suggests bacterial etiology of pharyngitis:

- A. temperature above 38.5°C.
B. presence of cough.
C. painful enlargement of front cervical lymph nodes.
D. A and C are true.
E. A, B and C are true.

Nr 123. Indicate the **false** sentence concerning skin lesions:

- A. erythema migrans occurs in Lyme disease (borreliosis).
- B. macular rash with the preceding appearance of petechiae in the natural skin folds (Pastia's sign) occurs in rubella.
- C. papulo-macular rash with the preceding 3 days of fever occurs in rapid erythema.
- D. polymorphic, multiform lesions present also in the hairy skin are characteristic of chickenpox.
- E. fusing big macular skin lesions, originating in the head, descending down the trunk to lower extremities and then disappearing in the same order, occur in the measles.

Nr 124. A 32-year-old man presents with chronic cough, excessive production of sputum, wheezing. His past medical history is positive for cigarette smoking (10 pack-years) and similar ailments occur in his father; chest X-ray is characteristic of emphysema. The most probable diagnosis in this case is:

- A. bronchial asthma.
- B. cystic fibrosis.
- C. lung cancer.
- D. chronic bronchitis.
- E. alpha 1-antitrypsin deficiency.

Nr 125. During the treatment of osteoporosis with bisphosphonates, the patient should receive appropriate calcium and vitamin D supplementation, because oral bisphosphonates are poorly absorbed and should be taken on an empty stomach with water.

- A. both statements are true and remain in the causal relationship.
- B. both statements are true, but without the causal relationship.
- C. the first statement is true, the second is false.
- D. the first statement is false, the second is true.
- E. both statements are false.

Nr 126. A 50-year-old woman with arterial hypertension receives perindopril 5mg, bisoprolol 5 mg and amlodipine 5mg every day. Her blood pressure during this treatment is 160/95 mmHg. GP should proceed to:

- A. diagnose resistant hypertension and refer the patient to the specialist.
- B. double the dose of each drug.
- C. add diuretic (or replace with diuretic one of the drugs received so far).
- D. add sartans (or replace with sartan one of the drugs received so far).
- E. add α -adrenolytic (or replace with α -adrenolytic one of the drugs received so far).

Nr 127. The most frequent cause of the acute coronary syndrome is:

- A. vascular spasm.
- B. clot formed on the damaged atherosclerotic plaque.
- C. embolism.
- D. inflammation of the coronary vessels.
- E. vascular malformation.

Nr 128. Patients with acute coronary syndrome, after the discharge from hospital, are recommended to:

- A. receive ASA (75-100 mg/d) lifelong.
- B. receive clopidogrel for 12 months.
- C. receive clopidogrel lifelong when allergic to or intolerant of ASA.
- D. A and B are true.
- E. A, B and C are true.

Nr 129. Diagnosis of acute pharyngitis and tonsillitis caused by group A beta-hemolytic streptococcus (PBHA) includes:

- A. clinical and epidemiological evaluations (e.g. Centor score).
- B. throat swab or fast PBHA antigen testing.
- C. measurement of the level of interleukin-6.
- D. A and B are true.
- E. A, B and C are true.

Nr 130. Which of the following is found on physical examination of a patient with pneumothorax?

- A. diminished or absent breath sounds.
- B. dullness on percussion.
- C. increased vocal fremitus.
- D. A and B are true.
- E. A, B and C are true.

Nr 131. Patient with suspected gastroesophageal reflux disease needs endoscopy if:

- A. symptoms of difficulty on swallowing (dysphagia) are present.
- B. painful swallowing (odynophagia) is present.
- C. is more than 40-year-old.
- D. A and B are true.
- E. A, B and C are true.

Nr 132. 10-year cardiovascular risk of death according to the SCORE board might be higher than indicated by the board in the following people:

- A. obese.
- B. with strong positive family history of early cardiovascular disease.
- C. with low HDL-cholesterol concentration.
- D. A and B are true.
- E. A, B and C are true.

Nr 133. Pharmacological treatment of moderate COPD consists in:

- A. regular use of short-acting anticholinergics 4-6 times per day.
- B. regular use of inhaled long-acting bronchodilators.
- C. regular use of selective phosphodiesterase 4 inhibitors.
- D. regular use of low and/or medium dose of inhaled corticosteroids.
- E. ad hoc use of selective short-acting β_2 -agonists.

Nr 134. One of the therapeutic components of COPD treatment, which reduces the risk of development of the disease and stops its progression is:

- A. prevention and cessation of smoking.
- B. regular physical activity regardless of the stage of the disease.
- C. annual flu vaccine.
- D. systematic pharmacotherapy.
- E. pulmonary rehabilitation.

Nr 135. A injured person, with a low risk of tetanus, who had the last dose of tetanus booster 3 years before, the preventive approach against the development of tetanus is (apart from the proper wound dressing):

- A. administration of tetanus-pertussis (or tetanus) vaccine followed with the vaccination scheme 0-1-6 months.
- B. administration of tetanus-pertussis or tetanus booster once.
- C. administration of single tetanus antitoxin and tetanus vaccine according to the scheme 0-1-6 months.
- D. administration of tetanus antitoxin and vaccine in a single booster.
- E. patient does not need specific prophylaxis.

Nr 136. The obligatory scheme of varicella vaccination in children is:

- A. from 9 to 13 months of age - single dose.
- B. from 9 to 13 months of age - single dose; 13-years old and older – 2 doses given at 4-6 weeks interval.
- C. each child older than 9 months, regardless of age, 2 doses administered at minimum 4 weeks interval.
- D. each child older than 9 months, regardless of age, 3 doses given according to the scheme 0-4-24 weeks.
- E. none of the answers is correct.

Nr 137. Contraindication to the performance of the oral glucose tolerance test is:

- A. previously diagnosed diabetes.
- B. malabsorption syndromes.
- C. partial gastrectomy.
- D. acute myocardial infarction.
- E. all of the above.

Nr 138. When giving a student with controlled diabetes the certification for physical education and sport activities, a physician should qualify the person to the group:

- A. As.
- B. A.
- C. B.
- D. C.
- E. Cl.

Nr 139. Fagerström questionnaire is used for assessing:

- A. strength of nicotine dependence.
- B. level of motivation to quit smoking.
- C. type of obesity.
- D. strength of benzodiazepine dependence.
- E. distance of intermittent claudication.

Nr 140. Choose the true statement regarding a randomized controlled clinical trial (RCT):

- A. it is a prospective study comparing the effect of intervention versus control group.
- B. patient's assignment to the control or intervention group is random.
- C. application of the double-blind method prevents the errors of wishful interpretation made by the patient or by physician.
- D. A and C are correct.
- E. A, B, C are correct.

Nr 141. Screening test for the presence of strabismus is:

- A. Hirschberg's test.
- B. white pupil test.
- C. testing with fork charts.
- D. testing with Ishihara charts.
- E. ear-eyelid reflex.

Nr 142. The presence of amyloid plaques and neurofibrillary tangles is characteristic of neuropathological examination of the brain in:

- A. Pick's disease.
- B. Alzheimer's disease.
- C. Parkinson's disease.
- D. Huntington's disease.
- E. Wilson's disease.

Nr 143. The "classic triad" (three symptoms) of alcohol delirium includes:

- A. visual hallucinations, disorientation, tremor.
- B. disorientation, autonomic hyperactivity, delusions.
- C. tremor, tachycardia, agitation.
- D. visual hallucinations, visual illusions, tremor.
- E. visual hallucinations, autonomic hyperactivity, lack of criticism.

Nr 144. Which of the following **is not** a symptom of benzodiazepine overdose?

- A. sedation.
- B. ataxia.
- C. aphasia.
- D. memory impairment.
- E. depression of the respiratory center.

Nr 145. Lethal dose of nicotine for human is 50-75 mg. How much nicotine is absorbed into the body after smoking a cigarette?

- A. 0.25 mg.
- B. 0.5 mg.
- C. 1-2 mg.
- D. 5 mg.
- E. over 5 mg.

Nr 146. Repeated complains about somatic symptoms and constant requests for further laboratory tests despite their negative results are characteristic features of:

- A. melancholic depression.
- B. paranoia.
- C. obsessive-compulsive disorder.
- D. borderline personality disorder.
- E. somatoform disorder.

Nr 147. Mental disorders may be caused by the anticholinergic activity of various medications, **except for**:

- A. tricyclic antidepressants.
- B. benzodiazepines.
- C. antihistaminic drugs.
- D. alkaloids of *Datura stramonium* (jimson weed).
- E. spasmolytic drugs.

Nr 148. A complete lack of verbal communication is called:

- A. alogia.
- B. mutism.
- C. stupor.
- D. psychomotor slowness.
- E. dissociation.

Nr 149. The group of schizophrenia symptoms called “4A” **does not** include:

- A. acathisia.
- B. “ambi” symptoms.
- C. autism.
- D. flat affect.
- E. association disturbances.

Nr 150. Which of the following is necessary for diagnosing bipolar disorder?

- A. depression.
- B. dysthymia.
- C. mania or hypomania.
- D. alternating symptoms of anxiety and sadness.
- E. delusions of richness.

Nr 151. The risk of suicide is lower if the family is:

- A. multigenerational (many generations live in the same household).
- B. displays full and supportive atmosphere.
- C. shows a high rate of expression of emotions.
- D. is without familiar history of mental diseases.
- E. familiar atmosphere does not influence the risk of suicide.

Nr 152. Transient (lasting 2-3 days) severe mental disorders as a reaction to exceptional stress of the person who did not previously display any mental disorders, is called:

- A. first episode of schizophrenia.
- B. posttraumatic stress disorder.
- C. adjustment disorder.
- D. Ganser syndrome.
- E. acute stress reaction.

Nr 153. The diagnosis of neuroleptic malignant syndrome **does not** include:

- A. disturbances of consciousness.
- B. increase in muscular tension.
- C. decrease in muscular tension.
- D. increase in body temperature.
- E. increase in creatine phosphatase activity.

Nr 154. The most effective drug for so called “treatment-resistant schizophrenia” is:

- A. clozapine.
- B. haloperidol.
- C. zuclopenthixol acetate.
- D. olanzapine.
- E. all of the above mentioned.

Nr 161. Which of the following is not an indication for intubation?

- A. unconscious patient with uncontrolled airway patency.
- B. patient with <9 on GCS scale or P(pain) on AVPU scale.
- C. not decompressed tension pneumothorax.
- D. airway burns.
- E. multiple injury with shock and disturbances of consciousness.

Nr 162. How long after acute myocardial infarction do most deaths happen (about half of all the deaths)?

- A. in the first 4 hours of the beginning of infarction.
- B. in the first 24 hours after infarction.
- C. in the first week after infarction.
- D. in the first month after infarction.
- E. in the first year after infarction.

Nr 163. Which of the following statements concerning defibrillation **is not** true?

- A. it is performed with alternating current with a voltage of 300-500V.
- B. it is performed with direct current with a voltage of 3000-5000V.
- C. the most common energy used in adult patients is 200-360J.
- D. energy of 4J/kg of body weight is used in children.
- E. it should not be used in asystole.

Nr 164. 5-8 thousand people per year died in the last decade in road traffic accidents in Poland. The mortality rate for traffic accidents in Poland is 2-3 times higher than in the most economically developed countries of the EU. The ratio of killed/wounded for these countries was 1:39 in the last decade. What was the ratio of killed/wounded in the same period for Poland?

- A. 1:5.
- B. 1:12.
- C. 1:25.
- D. 1:35.
- E. 1:45.

Nr 165. At a construction site one of the workers burned his eye with building lime. What should be done in this situation?

- A. take the victim to ophthalmologist as soon as possible.
- B. begin rinsing the eye with neutral fluid as soon as possible.
- C. apply drops containing antibiotics to the burned eye.
- D. apply neutralizing fluid.
- E. put dressing on the burned eye and take the victim to the ER.

Nr 166. What are the symptoms of eye burn with ultraviolet radiation?

- 1) increased lacrimation and photophobia;
- 2) eye pain occurring a few hours after the irradiation;
- 3) clouding of cornea;
- 4) impaired color vision.

The correct answer is:

- A. only 1.
- B. 1,2.
- C. 1,2,3.
- D. only 4.
- E. all of the above.

Nr 167. While playing tennis a man was struck with the ball in the right orbit. ER physician-on-duty stated the following symptoms: oedema and a small wound of the right upper eyelid and the restriction of upward eyeball mobility. The patient complains of diplopia. The above symptoms are indicative of:

- A. fracture of the upper orbital wall.
- B. expanding fracture of the orbit.
- C. rupture of the upper orbital wall.
- D. fracture of the orbital apex.
- E. none of the above.

Nr 168. The leading causes of death by lightning strike are:

- A. spine trauma and injury of spinal cord.
- B. extensive burns.
- C. multi-organ injury.
- D. myocardial infarction.
- E. circulatory arrest due to respiratory muscles paralysis.

Nr 169. In the carbon monoxide poisoning, the half-life of carboxyhemoglobin in the organism of a patient breathing the atmospheric air is about:

- A. 80 minutes.
- B. 250 minutes.
- C. 520 minutes.
- D. 800 minutes.
- E. 24 hours.

Nr 170. A young man suffered heavy burn of the right hand and of his head while firing off fireworks. What % of his body surface do the burns cover?

- A. 5%.
- B. 9%.
- C. 10%.
- D. 15%.
- E. 18%.

Nr 171. A 1.5-year-old child has been admitted to the ER with the symptoms of food poisoning. The child previously played in the garden. Which of the plants listed below **could not** have caused the poisoning?

- A. nettle.
- B. English ivy.
- C. Convallaria majalis (lily-of-the-valley).
- D. common yew.
- E. none of the listed plants is poisonous.

Nr 172. Most pulmonary emboli originate from venous thrombi in the:

- A. calf.
- B. upper extremity.
- C. lower extremity and pelvis.
- D. heart.
- E. all the above are equally possible.

Nr 173. Which of the following is the most effective in the treatment of angina pectoris associated with hypertrophic cardiomyopathy?

- A. nitroglycerine.
- B. digitalis.
- C. beta blocker.
- D. morphine.
- E. epinephrine.

Nr 174. Which kind of burns are pathognomonic of lightning strikes?

- A. punctate.
- B. linear.
- C. thermal.
- D. arborescent.
- E. in the shape of lightning.

Nr 175. Which of the following kinds of tissue have the least electrical resistance?

- A. skin. B. nerve, blood vessel. C. fat. D. bone. E. tendon.

Nr 176. The law states that the patient or his legal representative has a right to object to the opinion or decision of a doctor, if it affects the rights and obligations of the patient. The objection may be lodged with:

- A. voivode, who is the founding body of the health care facility.
B. medical committee operating at the Patients' Rights Ombudsman.
C. Minister of Health.
D. director of the healthcare facility.
E. patient has no such right.

Nr 177. In Poland (as in many other countries in Europe) physician's membership in a particular medical self-government structure (a regional chamber of physicians and dentists):

- A. depends entirely on the willingness of a doctor.
B. is mandatory only for physicians working in health care facilities of the Ministry of Defence.
C. is mandatory only for physicians working in health care facilities of the Ministry of Internal Affairs and Administration.
D. is obligatory by law.
E. the law does not regulate this issue.

Nr 178. Mental Health Protection Act allows for the use of direct coercion against a patient in the form of:

- A. administration of painful injections.
B. physical restraint, immobilization, isolation, and drug administration.
C. only drug administration.
D. isolation in specially prepared rooms.
E. act does not define the powers of health workers in this matter and leaves it to doctor's individual decision.

Nr 179. The doctor has an obligation to provide medical assistance:

- A. only when being on duty.
B. in any case when delay may cause a danger of loss of life, serious health disorder or in other urgent cases.
C. when principles of payment are stated.
D. the rules of ethics does not govern situations in which a physician has a duty to provide assistance.
E. in any situation concerning a minor.

Nr 185. Access to medical records can be charged if:

- 1) medical records are shared at the premises of a health care facility;
- 2) extracts or copies are prepared by a health care facility;
- 3) an original copy is given for return;
- 4) an electronic extract or a copy is prepared;
- 5) it concerns records older than 10 years.

The correct answer is:

- A.** 2,5. **B.** 3,4. **C.** 1,3. **D.** 2,4. **E.** 3,5.

Nr 186. In accordance with the Law on an old age and a disability pension paid from the Social Insurance Fund (ZUS), incapacity to work for the pension purposes is ruled for the period **not longer** than:

- A.** 1 year. **B.** 2 years. **C.** 3 years. **D.** 4 years. **E.** 5 years.

Nr 187. The Regulation of the Minister of Labor and Social Policy of 2002 on the criteria for assessing disability in people under the age of 16 years **does not** include the following as a condition necessitating constant care or assistance:

- A.** psychosis and psychotic syndromes.
B. autism.
C. epilepsy with frequent seizures.
D. frequent respiratory infections.
E. malignant tumors and hematologic proliferative diseases up to 5 years after treatment.

Nr 188. Social pension is not granted if total incapacity to work resulted from the impairment of the body occurred:

- A.** before the age of 18 years.
B. during high school or university period before the age of 25 years.
C. during employment.
D. during doctoral studies.
E. during postgraduate studies.

Nr 189. After how many days of the end of the previous period of sickness benefit may be granted a new period of sickness benefit if temporary incapacity to work caused by the same disease is stated again?

- A.** 20 days. **B.** 30 days. **C.** 40 days. **D.** 50 days. **E.** 60 days.

Nr 190. In accordance with the Law on an old age and a disability pension paid from the Social Insurance Fund (ZUS) a person, who has suffered the impairment of the body, is considered unable to live independently if s/he requires:

- A. assistance in daily activities.
- B. care in the acute phase of the disease.
- C. assistance in dealing with administrative matters.
- D. permanent and long-term care of another person in meeting basic needs.
- E. legal guardian appointed by the court.

Nr 191. The insured person is entitled to appeal to SIF (ZUS) medical board against the ruling of SIF (ZUS) certifying doctor within the following period of the receipt of the decision:

- A. 3 days.
- B. 5 days.
- C. 7 days.
- D. 14 days.
- E. 30 days.

Nr 192. SIF (ZUS) certifying doctor **does not** issue rulings on:

- A. partial incapacity to work.
- B. total incapacity to work.
- C. total incapacity to work on the farm.
- D. percentage of damage to health.
- E. inability to live independently.

Nr 193. Who of the following is the author of the definition: "Public health is the science and the art of preventing disease, prolonging life and promoting physical health and efficiency through organized community efforts...?"

- A. Julio P. Frank.
- B. Charles-Edward A. Winslow.
- C. Donald Acheson.
- D. WHO.
- E. Commission of the Milbank Foundation.

Nr 194. Which of the following risk factors contribute to falling ill to diseases of the circulatory system?

- 1) diabetes;
- 2) smoking;
- 3) low physical activity;
- 4) obesity;
- 5) hypertension;
- 6) high blood cholesterol.

The correct answer is:

- A. only 1.
- B. 1,4.
- C. 4,5,6.
- D. 1,2,3,4,5.
- E. all of the above.

Nr 195. Epidemiological transition that is changing the structure of disease in the world is the result of:

- A. changes in socio-economic situation of countries.
- B. changes in the surrounding environment.
- C. modifying effect of these changes on human health determinants.
- D. impact of these determinants on the profile of existing diseases, causes of death, incapacity to work and disability.
- E. all of the above.

Nr 196. Health promotion is a process that allows each person to increase the impact on their health, its improvement and maintenance through:

- A. making choices and decisions conducive to health.
- B. shaping needs and competence to solve health problems.
- C. strengthening the capacity of health.
- D. A and B are true.
- E. A,B and C are true.

Nr 197. According to most actual (2009) epidemiological data in Poland the proportion of deaths due to cardio-vascular diseases (CVD) and cancers to total mortality is about:

- A. 35% CVD and 25% cancers.
- B. 45% CVD and 35% cancers.
- C. 55% CVD and 20% cancers.
- D. 55% CVD and 28% cancers.
- E. all the above answers are false.

Nr 198. Health promoting behaviours include:

- 1) regular consumption of foods rich in homocysteine;
- 2) regular physical activity;
- 3) avoiding excessive exposure to sunlight;
- 4) regular consumption of "red" meat;
- 5) regular consumption of sea fish.

The correct answer is:

- A. 1,2,5.
- B. 1,2,4.
- C. 2,3,5.
- D. 1,2,3,5.
- E. all the answers are true.

Nr 199. Potential beneficial effects of regular physical exercise in patients participating in cardiac rehabilitation program **do not** include:

- 1) reduction of body fat percentage;
- 2) slower heart rate at rest;
- 3) increase in LDL concentration and reduction of triglycerides;
- 4) reduction of the risk of recurrent heart attack by at least 70%;
- 5) better frame of mind.

The correct answer is:

- A. 1,2,3,5.
- B. 1,2,5.
- C. 1,2,4,5.
- D. 1,3,4.
- E. all the answers are true.

Nr 200. Strategic goals of the National Health Programme for 2007-2015 include:

- 1) reduction of premature mortality due to cardiovascular diseases;
- 2) reduction of premature mortality due to cancers;
- 3) reduction of regional and social inequalities in population health status;
- 4) increase in accessibility of highly specialized services related to imaging diagnostics;
- 5) increase of at least 20% in national health care expenditures.

The correct answer is:

- A. 1,2.
- B. 1,2,3.
- C. 1,2,3,4.
- D. 1,2,5.
- E. all the answers are true.

Thank You !